

Title (en)
Automated material handling system

Title (de)
Automatisiertes Materialhandhabungssystem

Title (fr)
Système de manutention automatisé

Publication
EP 2790210 A3 20141231 (EN)

Application
EP 14176254 A 20030320

Priority
• US 38999302 P 20020619
• US 41799302 P 20021011
• EP 03761012 A 20030320

Abstract (en)
[origin: US2003235486A1] A highly efficient Automated Material Handling System (AMHS) that allows an overhead hoist transport vehicle to load and unload Work-In-Process (WIP) parts directly to/from one or more WIP storage units included in the system. The AMHS includes an overhead hoist transport subsystem and at least one vertical carousel stocker having a plurality of storage bins. The overhead hoist transport subsystem includes an overhead hoist transport vehicle traveling along a suspended track defining at least one predetermined route. The predetermined route passes over the vertical carousel stocker, which allows the overhead transport vehicle to access one or more WIP parts directly from one of the carousel storage bins. The selected carousel storage bin is positioned at the top of the vertical carousel stocker underneath the suspended track. Next, the overhead hoist transport vehicle is moved along the suspended track to a position above the selected carousel storage bin. The overhead hoist is then lowered parallel to the longitudinal axis of the vertical carousel stocker toward the selected storage bin. Finally, the overhead hoist is operated to pick the desired WIP lot directly from the carousel storage bin, or to place one or more WIP lots in the storage bin.

IPC 8 full level
B65G 1/00 (2006.01); **H01L 21/677** (2006.01); **B65G 1/127** (2006.01)

CPC (source: EP KR US)
B65G 1/0457 (2013.01 - US); **G06F 7/00** (2013.01 - KR); **H01L 21/67733** (2013.01 - EP US); **H01L 21/67736** (2013.01 - EP); **H01L 21/67769** (2013.01 - EP); **H01L 21/68** (2013.01 - KR)

Citation (search report)
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US10332770B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
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US 39352603 A 20030320; CN 03814475 A 20030320; CN 200910140647 A 20030320; EP 03761012 A 20030320; EP 14176254 A 20030320; JP 2004515615 A 20030320; JP 2011115010 A 20110523; JP 2011231707 A 20111021; JP 2012269548 A 20121210; JP 2014003564 A 20140110; JP 2015012714 A 20150126; KR 20047020530 A 20030320; TW 92106180 A 20030320; US 0308528 W 20030320; US 201213492341 A 20120608; US 201314080590 A 20131114; US 201514755928 A 20150630; US 201514788173 A 20150630; US 201514788464 A 20150630; US 65270707 A 20070112; US 72419410 A 20100315